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International Specialists in the Environment

US EPA RECORDS CENTER REGION 5



550719

M E M O R A N D U M

DATE: September 28, 1994

TO: Dan Krieg, Project Manager, E & E, Chicago, IL

FROM: Herbert B. Langer, TAT-Chemical Engineer, E & E, Detroit, MI *HL*

VIA: Emily Landis, TAT-Geochemist, E & E, Cleveland, OH

SUBJ: Organic Data Quality Assurance Review, 915 South Kildare Site, Chicago, Cook County, IL

REF: Analytical TDD: T05-9408-803 Project TDD: T05-9406-024
Analytical PAN: EIL0841AAA Project PAN: EIL0841SAA

The data quality assurance review for the three soil samples collected from the 915 South Kildare site in Chicago, Illinois, has been completed. Analysis for total Resource Conservation and Recovery Act (RCRA) listed semi-volatile compounds (EPA method 8270) in leachate collected using the Toxicity Characteristic Leaching Procedure (TCLP) was performed by National Environmental Testing Laboratories, Bartlett, Illinois.

The samples were numbered P01, P02, and P03. These site numbers corresponded to laboratory identification numbers 273672, 273673, and 273674, respectively.

Data Qualifications

I Holding Time: Acceptable

The samples were collected on August 16, 1994. The TCLP was performed August 23, 1994. The leachate was analyzed August 26 and 30, 1994. The TCLP and analyses were performed within the required holding times for the method and matrix.

II GC/MS Tuning: Acceptable

Decafluorotriphenylphosphine tuning compound was run within twelve hours of the sample. Ion abundance criteria were met for the instruments used.

III Initial and Continuing Calibration Verification: Acceptable

Initial calibrations were performed on the instruments used for the analyses August 13 and 29, 1994. All average response factors were greater than zero, and percent relative standard deviations between calibration standard response factors were less than thirty, as required.

Continuing calibrations were performed on each day of analysis. Relative response factors were all greater than 0.05, as required. The percent differences between initial and continuing calibration response factors, for target compounds, were less than twenty-five, as required.

IV Method Blank: Acceptable

A method blank was run each day of analysis, on each instrument used. None of the target compounds were detected in the blanks above the instrument detection limits.

V Optional Quality Control Analyses:

A. Matrix Spike/Matrix Spike Duplicates (MS/MSD): Acceptable

A MS and MSD were prepared using the low concentration standard and method blank. The percent recoveries of the spike compounds and relative percent difference between the spike results are within the laboratory's quality control guidelines.

B. Surrogate Recovery: Acceptable

A total of six surrogate compounds were added to each sample and the blank. The percent recoveries of the surrogate compounds were within the laboratory's quality control guidelines.

VI Compound Identification: Acceptable

None of the target compounds were detected in the samples. Compound identification in the MS and MSD used correct fingerprint patterns for Aroclor identification.

VII Compound Quantitation and Reported Detection Limits: Acceptable

None of the target compounds were detected in the samples and dilution of the samples was not required. The reported detection limits are considered accurate as reported.

VIII Overall Assessment of Data for Use:

The overall usefulness of the data is based on the criteria outlined in OSWER Directive 9360.4-01 (April 1990), Data Validation Procedures, Section 4.0, BNAs by GC/MS Analysis. Based upon the information provided, the data are considered acceptable for use as reported.



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DATE: September 28, 1994

TO: Dan Krieg, Project Manager, E & E, Chicago, IL

FROM: Herbert B. Langer, TAT-Chemical Engineer, E & E, Detroit, MI *HL*

VIA: Emily Landis, TAT-Geochemist, E & E, Cleveland, OH

SUBJ: Organic Data Quality Assurance Review, 915 South Kildare Site, Chicago, Cook County, IL

REF: Analytical TDD: T05-9408-803 Project TDD: T05-9406-024
Analytical PAN: EIL0841AAA Project PAN: EIL0841SAA

The data quality assurance review for the three soil samples collected from the 915 South Kildare site in Chicago, Illinois, has been completed. Analysis for total Resource Conservation and Recovery Act (RCRA) listed volatile compounds (EPA method 8240) in leachate collected using the Toxicity Characteristic Leaching Procedure (TCLP) was performed by National Environmental Testing Laboratories, Bartlett, Illinois.

The samples were numbered P01, P02, and P03. These site numbers corresponded to laboratory identification numbers 273672, 273673, and 273674, respectively.

Data Qualifications

I Holding Time: Acceptable

The samples were collected on August 16, 1994. The TCLP was performed August 23, 1994. The leachate was analyzed August 25, 1994. The TCLP and analyses were performed within the required holding times for the method and matrix.

II GC/MS Tuning: Acceptable

Bromofluorobenzene instrument tuning compound was run within twelve hours of the sample on the same instrument. Ion abundance criteria were met.

III Initial and Continuing Calibration Verification: Acceptable

Initial calibration was performed August 10, 1994. All average response factors were greater than zero, and percent relative standard deviations between calibration standard response factors were less than thirty, as required.

Continuing calibration was performed each day of analysis. Relative response factors were all greater than 0.05, as required. The percent differences between initial and continuing calibration response factors were less than twenty-five, as required.

IV Method Blank: Acceptable

A method blank was analyzed each day on each instrument used. None of the target compounds were detected in any blanks above the instrument detection limits.

V Optional Quality Control Analyses:

A. Matrix Spike/Matrix Spike Duplicates (MS/MSD): Acceptable

A MS and MSD were prepared using the low concentration standard and method blank. The percent recoveries of the spike compounds and relative percent differences between the results were within the laboratory's quality control guidelines.

B. Surrogate Recovery: Acceptable

A total of three surrogate compounds were added to each sample and blank. The percent recoveries of the surrogate compounds were within the laboratory's quality control guidelines.

VI Compound Identification: Acceptable

None of the target compounds were detected in the samples. Compound identification in the MS and MSD used correct fingerprint patterns for Aroclor identification.



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M E M O R A N D U M

DATE: September 28, 1994

TO: Dan Krieg, Project Manager, E & E, Chicago, IL

FROM: Herbert B. Langer, TAT-Chemical Engineer, E & E, Detroit, MI *dk*

VIA: Emily Landis, TAT-Geochemist, E & E, Cleveland, OH

SUBJ: Polychlorinated Biphenyl Data Quality Assurance Review,
915 South Kildare Site, Chicago, Cook County, IL

REF: Analytical TDD: T05-9408-803 Project TDD: T05-9406-024
Analytical PAN: EIL0841AAA Project PAN: EIL0841SAA

The data quality assurance review for the three soil samples collected from the 915 South Kildare site in Chicago, Illinois, has been completed. Analysis for Polychlorinated Biphenyl compounds (EPA method 8080) was performed by National Environmental Testing Laboratories, Bartlett, Illinois.

The samples were numbered P01, P02, and P03. These site numbers corresponded to laboratory identification numbers 273672, 273673, and 273674, respectively.

Data Qualifications

I Sample Holding Time: Acceptable

The samples were collected August 16, 1994, and extracted August 24, 1994, within the recommended fourteen days for soil extraction. The extracts were analyzed August 28, 1994, within the required forty day.

II Instrument Performance: Acceptable

Standard chromatograms show adequate peak resolution. Retention time shifts for surrogate compounds in daily standards were less than 0.3 percent as required for the capillary columns used for the analyses

III Calibration:

A. Initial Calibration: Acceptable

Initial calibration was performed using Aroclors 1242 and 1260 using five concentrations of standard solutions. The percent relative standard deviation of the response factors for each calibration standard was less than ten as required.

B. Continuing Calibration: Acceptable

Continuing calibration was performed on the day of analysis. The percent differences between the initial calibration and continuing calibration response factors were less than ten, as required for quantitation columns. Since no Aroclors were detected in the samples, confirmation column calibration was not reported by the laboratory.

IV Method Blank: Acceptable

A method blank was prepared and analyzed on the day sample analyses were performed, as required. None of the target Aroclors were detected in the blank above the instrument detection limit.

V Optional QC Checks:

A. Surrogate Recoveries: Acceptable

The surrogate compound decachlorobiphenyl was added to each sample. The percent recoveries of the surrogate compound from each sample were within the laboratory's quality control guidelines.

B. Matrix Spike/Matrix Spike Duplicates (MS/MSD): Acceptable

A MS and MSD were prepared using sample P01. The percent recoveries of the spike compounds and relative percent differences between MS and MSD results were within the laboratory's quality control guidelines.

VI Compound Identification: Acceptable

None of the target Aroclors were detected in the samples. Compound identification in the MS and MSD used correct fingerprint patterns for Aroclor identification.

VII Compound Quantitation and Reported Detection Limits: Acceptable

None of the target Aroclors were detected in the samples. Dilution of the samples was not required. The reported detection limits are considered accurate as reported.

VIII Overall Assessment of Data for Use:

The overall usefulness of the data is based on the criteria outlined in OSWER Directive 9360.4-01 (April 1990), Data Validation Procedures, Section 7.0, PCBs. Based upon the information provided, the data are considered acceptable for use as reported.



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FROM: Herbert B. Langer, TAT-Chemical Engineer, E & E, Detroit, MI *HL*

VIA: Emily Landis, TAT-Geochemist, E & E, Cleveland, OH

SUBJ: Inorganic Data Quality Assurance Review, 915 South Kildare Site, Chicago, Cook County, IL

REF: Analytical TDD: T05-9408-803 Project TDD: T05-9406-024
Analytical PAN: EIL0841AAA Project PAN: EIL0841SAA

The data quality assurance review for the three soil samples collected from the 915 South Kildare site in Chicago, Illinois, has been completed. Analysis for total Resource Conservation and Recovery Act (RCRA) listed metals in leachate collected using the Toxicity Characteristic Leaching Procedure (TCLP) was performed by National Environmental Testing Laboratories, Bartlett, Illinois.

The laboratory used Cold Vapor Atomic Absorption to determine mercury (EPA method 7470), standard Atomic Absorption to determine silver (EPA method 7760), and the Inductively Coupled Plasma technique (EPA method 6010) to determine the rest of the listed metals.

The samples were numbered P01, P02, and P03. These site numbers corresponded to laboratory identification numbers 273672, 273673, and 273674, respectively.

Data Qualifications

I Sample Holding Time: Acceptable

The samples were collected on August 16, 1994. The TCLP was performed August 25, 1994. The leachates were analyzed August 25 and 29, 1994. The TCLP and analyses were performed within the required holding times for the methods and matrix.

II Initial and Continuing Calibration Verification: Acceptable

Calibration standards were analyzed at the beginning of the sample runs, and after every ten samples were analyzed during the runs, as required. The reported values for the calibration standards were within the recommended ± 10 percent of the mean values. The correlation coefficients of the calibration curves for the instruments used for Atomic Adsorption analyses were satisfactory.

III Blanks: Acceptable

Method blanks were prepared and analyzed within the recommended twenty samples of the target sample analyses. None of the target metals were detected in the blanks above the instrument detection limits.

IV Interference Check Sample (ICS) Analysis: Acceptable

An ICS was analyzed during the ICP sample run. The results were within the required ± 20 percent of the mean values.

V. Matrix Spike/Matrix Spike Duplicate (MS/MSD): Acceptable

A MS and MSD were prepared and analyzed during the sample run. The percent recovery of the spike analytes and relative percent difference between MS and MSD results were within the laboratory's quality control guidelines.

VI Overall Assessment of Data for Use

The overall usefulness of the data is based on the criteria outlined in OSWER Directive 9360.4-01 (April 1990), Data Validation Procedures, Section 3.0, Metallic Inorganic Parameters. Based upon the information provided, the data are considered acceptable for use as reported.



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ANALYTICAL REPORT

Ms. Mary Jane Ripp
ECOLOGY & ENVIRONMENT, INC
111 West Jackson Blvd.
Chicago, IL 60604

09/01/1994

Sample No. : 273672

NET Job No.: 94.06423

Sample Description: PO1 Soil sample; Grab
TCLP-PCB; T05-9408-803

Date Taken: 08/16/1994
Time Taken: 12:45
IEPA Cert. No. 100221

Date Received: 08/17/1994
Time Received: 11:10
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
Solids, Total	90.3	%	08/23/1994	0.1	mpl	104	2540 (4)
TCLP, ZHE Volatiles Prep	Leached		08/23/1994		las	133	1311 (1)
TCLP Metals Prep	Leached		08/23/1994		las	262	1311 (1)
Metals Prep, TCLP	Complete		08/25/1994		jmt	557	3010 (1)
Metals Prep, Ag TCLP	Complete		08/25/1994		mjb	223	7760 (1)
Metals Prep, Hg TCLP	Complete		08/25/1994		mjb	396	
TCLP - ICP	Complete	mg/L			mjb	120	6010 (1)
TCLP-Arsenic, ICP	<0.20	mg/L	08/29/1994	0.20	jmt	557 944	6010 (1)
TCLP-Barium, ICP	0.488	mg/L	08/29/1994	0.020	jmt	557 894	6010 (1)
TCLP-Cadmium, ICP	<0.010	mg/L	08/29/1994	0.010	jmt	557 869	6010 (1)
TCLP-Chromium, ICP	<0.040	mg/L	08/25/1994	0.040	jmt	557 843	6010 (1)
TCLP-Lead, ICP	<0.080	mg/L	08/25/1994	0.080	jmt	557 101	6010 (1)
TCLP-Mercury, CVAA	<0.0004	mg/L	08/25/1994	0.0002	mic	396 382	7470 (1)
TCLP-Selenium, ICP	<0.10	mg/L	08/29/1994	0.10	jmt	557 781	6010 (1)
TCLP-Silver, AA	<0.040	mg/L	08/25/1994	0.040	mic	223 262	7760 (1)
TCLP Organic Prep	Leached		08/23/1994		las	124	1311 (1)
Prep PCBs 8080 NonAqueous	extracted		08/24/1994		seh	193	3540A (1)
PCBs 8080 NonAqueous							
PCB-1016	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1221	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1232	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1242	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1248	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1254	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1260	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1268	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
Surr: Tetrachloroxylene (TCX)	Masked	%	08/27/1994	31-128	seh	193 113	8080 (1)
Surr: Decachlorobiphenyl (DCB)	87	%	08/27/1994	29-128	seh	193 113	8080 (1)
Prep, BNA Extract (TCLP)	extracted		08/24/1994		seh	250	3500 (1)





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09/01/1994

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NET Job No.: 94.06423

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TCLP-PCB; T05-9408-803

Date Taken: 08/16/1994
Time Taken: 12:45
IEPA Cert. No. 100221

Date Received: 08/17/1994
Time Received: 11:10
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
TCLP-ACID COMPOUNDS - 8270							
TCLP-Cresols, Total	<0.10	mg/L	08/30/1994	0.10	adl	250 573	8270 (1)
TCLP-3-Methylphenol (m-cresol)	<0.10	mg/L	08/30/1994	0.10	adl	250 573	8270 (1)
TCLP-2-Methylphenol (o-Cresol)	<0.10	mg/L	08/30/1994	0.10	adl	250 573	8270 (1)
TCLP-4-Methylphenol (p-Cresol)	<0.10	mg/L	08/30/1994	0.10	adl	250 573	8270 (1)
TCLP-Pentachlorophenol	<0.50	mg/L	08/30/1994	0.50	adl	250 573	8270 (1)
TCLP-2,4,5-Trichlorophenol	<0.50	mg/L	08/30/1994	0.50	adl	250 573	8270 (1)
TCLP-2,4,6-Trichlorophenol	<0.10	mg/L	08/30/1994	0.10	adl	250 573	8270 (1)
Surr: Phenol-d6	60	%	08/30/1994	10-94	adl	250 573	8270 (1)
Surr: 2-Fluorophenol	61	%	08/30/1994	21-100	adl	250 573	8270 (1)
Surr: 2,4,6-Tribromophenol	84	%	08/30/1994	10-123	adl	250 573	8270 (1)
TCLP-VOLATILES-8240							
TCLP-Benzene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Carbon Tetrachloride	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Chlorobenzene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Chloroform	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-1,4-Dichlorobenzene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-1,2-Dichloroethane	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-1,1-Dichloroethene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Methyl Ethyl Ketone	<0.200	mg/L	08/25/1994	0.200	llj	133 664	8240 (1)
TCLP-Tetrachloroethene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Trichloroethene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Vinyl Chloride	<0.160	mg/L	08/25/1994	0.160	llj	133 664	8240 (1)
Surr: 1,2-Dichloroethane-d4	100	%	08/25/1994	76-114	llj	133 664	8240 (1)
Surr: Toluene-d8	99	%	08/25/1994	88-110	llj	133 664	8240 (1)
Surr: Bromofluorobenzene	98	%	08/25/1994	86-115	llj	133 664	8240 (1)





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ANALYTICAL REPORT

Ms. Mary Jane Ripp
ECOLOGY & ENVIRONMENT, INC
111 West Jackson Blvd.
Chicago, IL 60604

09/01/1994

Sample No. : 273672

NET Job No.: 94.06423

Sample Description: PO1 Soil sample; Grab
TCLP-PCB; T05-9408-803

Date Taken: 08/16/1994
Time Taken: 12:45
IEPA Cert. No. 100221

Date Received: 08/17/1994
Time Received: 11:10
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
TCLP BASE NEUTRAL COMPOUNDS							
TCLP-1,4-Dichlorobenzene	<0.10	mg/L	08/30/1994	0.10	adl	573 8270 (1)	
TCLP-Hexachloroethane	<0.10	mg/L	08/30/1994	0.10	adl	573 8270 (1)	
TCLP-Nitrobenzene	<0.10	mg/L	08/30/1994	0.10	adl	573 8270 (1)	
TCLP-Hexachlorobutadiene	<0.10	mg/L	08/30/1994	0.10	adl	573 8270 (1)	
TCLP-2,4-Dinitrotoluene	<0.10	mg/L	08/30/1994	0.10	adl	573 8270 (1)	
TCLP-Hexachlorobenzene	<0.10	mg/L	08/30/1994	0.10	adl	573 8270 (1)	
TCLP-Pyridine	<0.10	mg/L	08/30/1994	0.10	adl	573 8270 (1)	
Surr: Nitrobenzene-d5	82	%	08/30/1994	35-114	adl	573 8270 (1)	
Surr: 2-Fluorobiphenyl	73	%	08/30/1994	43-116	adl	573 8270 (1)	
Surr: Terphenyl-d14	84	%	08/30/1994	33-141	adl	573 8270 (1)	





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ANALYTICAL REPORT

Ms. Mary Jane Ripp
ECOLOGY & ENVIRONMENT, INC
111 West Jackson Blvd.
Chicago, IL 60604

09/01/1994

Sample No. : 273673

NET Job No.: 94.06423

Sample Description: PO2 Soil sample; Grab
TCLP-PCB; T05-9408-803

Date Taken: 08/16/1994
Time Taken: 12:50
IEPA Cert. No. 100221

Date Received: 08/17/1994
Time Received: 11:10
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
Solids, Total	93.6	%	08/23/1994	0.1	mpl	104	2540 (4)
TCLP, ZHE Volatiles Prep	Leached		08/23/1994		las	133	1311 (1)
TCLP Metals Prep	Leached		08/23/1994		las	262	1311 (1)
Metals Prep, TCLP	Complete		08/25/1994		jmt	557	3010 (1)
Metals Prep, Ag TCLP	Complete		08/25/1994		mjb	223	7760 (1)
Metals Prep, Hg TCLP	Complete		08/25/1994		mjb	396	
TCLP - ICP	Complete	mg/L			mjb	120	6010 (1)
TCLP-Arsenic, ICP	<0.20	mg/L	08/25/1994	0.20	jmt	557 934	6010 (1)
TCLP-Barium, ICP	0.167	mg/L	08/25/1994	0.020	jmt	557 884	6010 (1)
TCLP-Cadmium, ICP	<0.010	mg/L	08/25/1994	0.010	jmt	557 860	6010 (1)
TCLP-Chromium, ICP	<0.040	mg/L	08/25/1994	0.040	jmt	557 843	6010 (1)
TCLP-Lead, ICP	<0.080	mg/L	08/25/1994	0.080	jmt	557 101	6010 (1)
TCLP-Mercury, CVA	<0.0004	mg/L	08/25/1994	0.0002	mic	396 382	7470 (1)
TCLP-Selenium, ICP	<0.10	mg/L	08/29/1994	0.10	jmt	557 781	6010 (1)
TCLP-Silver, AA	<0.040	mg/L	08/25/1994	0.040	mic	223 262	7760 (1)
TCLP Organic Prep	Leached		08/23/1994		las	124	1311 (1)
Prep PCBs 8080 NonAqueous	extracted		08/24/1994		seh	193	3540A (1)
PCBs 8080 NonAqueous							
PCB-1016	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1221	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1232	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1242	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1248	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1254	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1260	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1268	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
Surr: Tetrachloroxylene (TCX)	Masked	%	08/27/1994	31-128	seh	193 113	8080 (1)
Surr: Decachlorobiphenyl (DCB)	91	%	08/27/1994	29-128	seh	193 113	8080 (1)
Prep, BNA Extract (TCLP)	extracted		08/24/1994		seh	250	3500 (1)





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ANALYTICAL REPORT

Ms. Mary Jane Ripp
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111 West Jackson Blvd.
Chicago, IL 60604

09/01/1994

Sample No. : 273673

NET Job No.: 94.06423

Sample Description: PO2 Soil sample; Grab
TCLP-PCB; T05-9408-803

Date Taken: 08/16/1994
Time Taken: 12:50
IEPA Cert. No. 100221

Date Received: 08/17/1994
Time Received: 11:10
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
TCLP-ACID COMPOUNDS - 8270							
TCLP-Cresols, Total	<0.10	mg/L	08/26/1994	0.10	rla	250 571	8270 (1)
TCLP-3-Methylphenol (m-cresol)	<0.10	mg/L	08/26/1994	0.10	rla	250 571	8270 (1)
TCLP-2-Methylphenol (o-Cresol)	<0.10	mg/L	08/26/1994	0.10	rla	250 571	8270 (1)
TCLP-4-Methylphenol (p-Cresol)	<0.10	mg/L	08/26/1994	0.10	rla	250 571	8270 (1)
TCLP-Pentachlorophenol	<0.50	mg/L	08/26/1994	0.50	rla	250 571	8270 (1)
TCLP-2,4,5-Trichlorophenol	<0.50	mg/L	08/26/1994	0.50	rla	250 571	8270 (1)
TCLP-2,4,6-Trichlorophenol	<0.10	mg/L	08/26/1994	0.10	rla	250 571	8270 (1)
Surr: Phenol-d6	56	%	08/26/1994	10-94	rla	250 571	8270 (1)
Surr: 2-Fluorophenol	56	%	08/26/1994	21-100	rla	250 571	8270 (1)
Surr: 2,4,6-Tribromophenol	73	%	08/26/1994	10-123	rla	250 571	8270 (1)
TCLP-VOLATILES-8240							
TCLP-Benzene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Carbon Tetrachloride	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Chlorobenzene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Chloroform	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-1,4-Dichlorobenzene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-1,2-Dichloroethane	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-1,1-Dichloroethene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Methyl Ethyl Ketone	<0.200	mg/L	08/25/1994	0.200	llj	133 664	8240 (1)
TCLP-Tetrachloroethene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Trichloroethene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Vinyl Chloride	<0.160	mg/L	08/25/1994	0.160	llj	133 664	8240 (1)
Surr: 1,2-Dichloroethane-d4	104	%	08/25/1994	76-114	llj	133 664	8240 (1)
Surr: Toluene-d8	98	%	08/25/1994	88-110	llj	133 664	8240 (1)
Surr: Bromofluorobenzene	98	%	08/25/1994	86-115	llj	133 664	8240 (1)





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ANALYTICAL REPORT

Ms. Mary Jane Ripp
ECOLOGY & ENVIRONMENT, INC
111 West Jackson Blvd.
Chicago, IL 60604

09/01/1994

Sample No. : 273673

NET Job No.: 94.06423

Sample Description: PO2 Soil sample; Grab
TCLP-PCB; T05-9408-803

Date Taken: 08/16/1994
Time Taken: 12:50
IEPA Cert. No. 100221

Date Received: 08/17/1994
Time Received: 11:10
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
TCLP BASE NEUTRAL COMPOUNDS							
TCLP-1,4-Dichlorobenzene	<0.10	mg/L	08/26/1994	0.10	rla	571 8270 (1)	
TCLP-Hexachloroethane	<0.10	mg/L	08/26/1994	0.10	rla	571 8270 (1)	
TCLP-Nitrobenzene	<0.10	mg/L	08/26/1994	0.10	rla	571 8270 (1)	
TCLP-Hexachlorobutadiene	<0.10	mg/L	08/26/1994	0.10	rla	571 8270 (1)	
TCLP-2,4-Dinitrotoluene	<0.10	mg/L	08/26/1994	0.10	rla	571 8270 (1)	
TCLP-Hexachlorobenzene	<0.10	mg/L	08/26/1994	0.10	rla	571 8270 (1)	
TCLP-Pyridine	<0.10	mg/L	08/26/1994	0.10	rla	571 8270 (1)	
Surr: Nitrobenzene-d5	74	%	08/26/1994	35-114	rla	571 8270 (1)	
Surr: 2-Fluorobiphenyl	55	%	08/26/1994	43-116	rla	571 8270 (1)	
Surr: Terphenyl-d14	83	%	08/26/1994	33-141	rla	571 8270 (1)	





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ANALYTICAL REPORT

Ms. Mary Jane Ripp
ECOLOGY & ENVIRONMENT, INC
111 West Jackson Blvd.
Chicago, IL 60604

09/01/1994

Sample No. : 273674

NET Job No.: 94.06423

Sample Description: PO3 Soil sample; Comp
TCLP-PCB; T05-9408-803

Date Taken: 08/16/1994
Time Taken: 13:05
IEPA Cert. No. 100221

Date Received: 08/17/1994
Time Received: 11:10
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
Solids, Total	96.6	%	08/23/1994	0.1	mpl	104	2540 (4)
TCLP, ZHE Volatiles Prep	Leached		08/23/1994		las	133	1311 (1)
TCLP Metals Prep	Leached		08/23/1994		las	262	1311 (1)
Metals Prep, TCLP	Complete		08/25/1994		jmt	557	3010 (1)
Metals Prep, Ag TCLP	Complete		08/25/1994		mjb	223	7760 (1)
Metals Prep, Hg TCLP	Complete		08/25/1994		mjb	396	
TCLP - ICP	Complete	mg/L			mjb	120	6010 (1)
TCLP-Arsenic, ICP	<0.20	mg/L	08/25/1994	0.20	jmt	557 934	6010 (1)
TCLP-Barium, ICP	0.151	mg/L	08/25/1994	0.020	jmt	557 884	6010 (1)
TCLP-Cadmium, ICP	<0.010	mg/L	08/29/1994	0.010	jmt	557 860	6010 (1)
TCLP-Chromium, ICP	<0.040	mg/L	08/25/1994	0.040	jmt	557 843	6010 (1)
TCLP-Lead, ICP	<0.080	mg/L	08/25/1994	0.080	jmt	557 101	6010 (1)
TCLP-Mercury, CVAA	<0.0004	mg/L	08/25/1994	0.0002	mic	396 382	7470 (1)
TCLP-Selenium, ICP	<0.10	mg/L	08/29/1994	0.10	jmt	557 781	6010 (1)
TCLP-Silver, AA	<0.040	mg/L	08/25/1994	0.040	mic	223 262	7760 (1)
TCLP Organic Prep	Leached		08/23/1994		las	124	1311 (1)
Prep PCBs 8080 NonAqueous	extracted		08/24/1994		seh	193	3540A (1)
PCBs 8080 NonAqueous							
PCB-1016	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1221	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1232	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1242	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1248	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1254	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1260	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
PCB-1268	<50	ug/kg	08/27/1994	50	seh	193 113	8080 (1)
Surr: Tetrachloroxylene (TCX)	Masked	%	08/27/1994	31-128	seh	193 113	8080 (1)
Surr: Decachlorobiphenyl (DCB)	96	%	08/27/1994	29-128	seh	193 113	8080 (1)
Prep, BNA Extract (TCLP)	extracted		08/24/1994		seh	250	3500 (1)





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Ms. Mary Jane Ripp
ECOLOGY & ENVIRONMENT, INC
111 West Jackson Blvd.
Chicago, IL 60604

09/01/1994

Sample No. : 273674

NET Job No.: 94.06423

Sample Description: PO3 Soil sample; Comp
TCLP-PCB; T05-9408-803

Date Taken: 08/16/1994
Time Taken: 13:05
IEPA Cert. No. 100221

Date Received: 08/17/1994
Time Received: 11:10
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
TCLP-ACID COMPOUNDS - 8270							
TCLP-Cresols, Total	<0.10	mg/L	08/30/1994	0.10	adl	250 573	8270 (1)
TCLP-3-Methylphenol (m-cresol)	<0.10	mg/L	08/30/1994	0.10	adl	250 573	8270 (1)
TCLP-2-Methylphenol (o-Cresol)	<0.10	mg/L	08/30/1994	0.10	adl	250 573	8270 (1)
TCLP-4-Methylphenol (p-Cresol)	<0.10	mg/L	08/30/1994	0.10	adl	250 573	8270 (1)
TCLP-Pentachlorophenol	<0.50	mg/L	08/30/1994	0.50	adl	250 573	8270 (1)
TCLP-2,4,5-Trichlorophenol	<0.50	mg/L	08/30/1994	0.50	adl	250 573	8270 (1)
TCLP-2,4,6-Trichlorophenol	<0.10	mg/L	08/30/1994	0.10	adl	250 573	8270 (1)
Surr: Phenol-d6	56	%	08/30/1994	10-94	adl	250 573	8270 (1)
Surr: 2-Fluorophenol	59	%	08/30/1994	21-100	adl	250 573	8270 (1)
Surr: 2,4,6-Tribromophenol	94	%	08/30/1994	10-123	adl	250 573	8270 (1)
TCLP-VOLATILES-8240							
TCLP-Benzene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Carbon Tetrachloride	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Chlorobenzene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Chloroform	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-1,4-Dichlorobenzene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-1,2-Dichloroethane	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-1,1-Dichloroethene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Methyl Ethyl Ketone	<0.200	mg/L	08/25/1994	0.200	llj	133 664	8240 (1)
TCLP-Tetrachloroethene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Trichloroethene	<0.020	mg/L	08/25/1994	0.020	llj	133 664	8240 (1)
TCLP-Vinyl Chloride	<0.160	mg/L	08/25/1994	0.160	llj	133 664	8240 (1)
Surr: 1,2-Dichloroethane-d4	101	%	08/25/1994	76-114	llj	133 664	8240 (1)
Surr: Toluene-d8	98	%	08/25/1994	88-110	llj	133 664	8240 (1)
Surr: Bromofluorobenzene	96	%	08/25/1994	86-115	llj	133 664	8240 (1)





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09/01/1994

Sample No. : 273674

NET Job No.: 94.06423

Sample Description: PO3 Soil sample; Comp
TCLP-PCB; T05-9408-803

Date Taken: 08/16/1994
Time Taken: 13:05
IEPA Cert. No. 100221

Date Received: 08/17/1994
Time Received: 11:10
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
TCLP BASE NEUTRAL COMPOUNDS							
TCLP-1,4-Dichlorobenzene	<0.10	mg/L	08/30/1994	0.10	adl	573 8270 (1)	
TCLP-Hexachloroethane	<0.10	mg/L	08/30/1994	0.10	adl	573 8270 (1)	
TCLP-Nitrobenzene	<0.10	mg/L	08/30/1994	0.10	adl	573 8270 (1)	
TCLP-Hexachlorobutadiene	<0.10	mg/L	08/30/1994	0.10	adl	573 8270 (1)	
TCLP-2,4-Dinitrotoluene	<0.10	mg/L	08/30/1994	0.10	adl	573 8270 (1)	
TCLP-Hexachlorobenzene	<0.10	mg/L	08/30/1994	0.10	adl	573 8270 (1)	
TCLP-Pyridine	<0.10	mg/L	08/30/1994	0.10	adl	573 8270 (1)	
Surr: Nitrobenzene-d5	72	%	08/30/1994	35-114	adl	573 8270 (1)	
Surr: 2-Fluorobiphenyl	65	%	08/30/1994	43-116	adl	573 8270 (1)	
Surr: Terphenyl-d14	87	%	08/30/1994	33-141	adl	573 8270 (1)	



NET Midwest, Bartlett Division

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	: Less than; When appearing in the results column indicates the analyte was not detected at or above the reported value.
mg/L	: Concentration in units of milligrams of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per million (ppm).
ug/g	: Concentration in units of micrograms of analyte per gram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per million (ppm) or mg/Kg.
ug/L	: Concentration in units of micrograms of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per billion (ppb).
ug/Kg	: Concentration in units of micrograms of analyte per kilogram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per billion (ppb).
B	: Sample result flag indicating that the analyte was also found in the method blank analysis. The value after the B indicates the concentration found in the blank analysis.
D	: Sample result flag indicating that the reported concentration is from an analysis performed at a dilution. The value following the D indicates the dilution factor of the analysis.
J	: Sample result flag indicating that the reported concentration is below the routine reporting limit but greater than the Method Detection Limit. The value should be considered estimated.
TCLP	: These initials appearing in front of an analyte name indicate that the Toxicity Characteristic Leaching Procedure (TCLP) was performed for this test.
%	: Percent; To convert ppm to %, divide the result by 10,000. To convert % to ppm, multiply the result by 10,000.
Dry Weight (dw)	: When indicated, the results are reported on a dry weight basis. The contribution of the moisture content in the sample is subtracted when calculating the concentration of the analyte.
ICP	: Indicates analysis was performed using Inductively Coupled Plasma Spectroscopy.
AA	: Indicates analysis was performed using Atomic Absorption Spectroscopy.
GFAA	: Indicates analysis was performed using Graphite Furnace Atomic Absorption Spectroscopy.
PQL	: Practical Quantitation Limit; the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Method References

- (1) Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986.
- (2) ASTM "American Society for Testing Materials"
- (3) Methods 100 through 499: see "Methods for Chemical Analysis of Water and Wastes", USEPA, 600/4-79-020, Rev. 1983.
- (4) See "Standard Methods for the Examination of Water and Wastewater", 17th Ed, APHA, 1989.
- (5) Methods 600 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants", USEPA Federal Register Vol. 49 No. 209, October 1984.
- (6) Methods 500 through 599: see "Methods for the Determination of Organic Compounds in Drinking Water," USEPA 600/4-88/039, Rev. 1988.